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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,248	03/29/2006	Akira Kato	36856.1428	5544

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EXAMINER
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NGUYEN, SIMON

ART UNIT	PAPER NUMBER
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2618

NOTIFICATION DATE	DELIVERY MODE
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09/05/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JKEATING@KBIPLAW.COM  
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<b>Office Action Summary</b>	<b>Application No.</b> 10/595,248	<b>Applicant(s)</b> KATO, AKIRA	
	<b>Examiner</b> SIMON D. NGUYEN	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-13 and 15-17 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☒ Claim(s) 18-22 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 9-17, drawn to a method for controlling a local oscillating signal in a receiver, classified in class 455, subclass 255+.
  - II. Claims 18-22, drawn to a method for controlling a local oscillating signal in a transmitter, classified in class 455, subclass 91.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination II has separate utility such as a modulation circuit for modulating a transmission signal to a radio signal. See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to

provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

3. Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification;
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;
- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
- (d) the prior art applicable to one invention would not likely be applicable to another invention;
- (e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

**Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.**

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. During a telephone conversation with Mr. Christopher A. Bennett on 8/28/08, an attorney of this application, a provisional election was made without traverse to prosecute the invention of group I, claims 9-17. Affirmation of this election must be made by applicant in replying to this Office action. Claims 18-22 were withdrawn from

further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

As the result, claims 9-17 will be selected for consideration and claims 18-22 will be cancelled.

### ***Drawings***

5. The drawings are objected to because figs. 1-2, 4-5 fail to label (name) components in circuits. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 9-13, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Sanderford, Jr. et al. (6,335,953).

Regarding claim 9, Sanderford, Jr. discloses a radio receiver (figs. 1, 3, abstract), comprising: a radio receiver circuit that receives a radio signal; a LO circuit (304, 309, 315) that oscillates a LO signal; a demodulation circuit (310, 316) that demodulates the signal (column 7 lines 48-51); and an oscillating frequency control circuit (column 8 lines 40-41) repeatedly sweeps (continue to sweep) over a frequency band (column 3 lines 9-10, column 4 lines 29-31, column 8 lines 40-43, 65-66, column 9 lines 45-55, column 10 lines 37-43, column 14 line 2, column 17 lines 57-63) that is equal the width of a frequency drift in a carrier frequency of a radio transmitter (column 5 lines 13-38), that transmits the radio signal that is equal to the width of a frequency drift in the oscillation frequency of the LO (column 5 lines 39-53, column 6 lines 21-52, column 17 lines 57-63). It should be noted that Sanderford disclosing the receiver continue to sweep in frequency spectrum to search for valid incoming messages (column 4 line 29-31, column 8 lines 40-41, column 9 line 46-50, column 10 lines 37-50) or to sweep to reach a maximum point then reverse the direction of sweeping (column 8 lines 52-67) which means the receiver continue to sweep without stopping over the frequency bandwidth.

Regarding claim 10, Sanderford further disclose the transmission signal is a digital data signal (column 6 line 11, column 13 lines 21-25) including an error correction code (column 7 lines 1-8).

Regarding claim 11, Sanderford further discloses the transmission signal is a digital data signal in which codes having identical content are repeated with a repetition period in which the oscillation frequency is swept (column 6 line 53 to column 7 line 21, column 10 lines 37-50, column 15 lines 1-44, column 20 lines 22-67).

Regarding claim 12, It should be noted that Sanderford have disclosed the local oscillation frequency is swept in the frequency band within a repetition period (see the rejection of claims 9, 12) which is obviously the frequency of the LO will be changed within the repetition period in order to match with the transmission signal.

Regarding claim 13, Sanderford further discloses an aerial wire (antenna 300) for receiving the radio signal (figs. 1, 3).

Regarding claims 15 and 17, Sanderford further discloses a mixer (303) and PLL (310) (fig.3).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanderford, Jr. et al. (6,335,953) in view of King et al. (7,359,448)

Regarding claim 16, Sanderford discloses a carrier signal is 915 MHz. It should be noted that Sanderford discloses a transceiver for receiving and transmitting signals in a plurality of different frequency bands (ASK, BPSK, FSK) (fig.3) which means that it is obviously, Sanderford can use a carrier of 315 MHz which is known to those skilled in the art in order to satisfy his designing choice.

King discloses a communication device which a transceiver uses a carrier signal of 315 MHz to communication between a transmitter and a receiver (fig.1, column 3 lines 12-14). Therefore, it would have been obviously to one skilled in the art at the time the invention was made to have Sanderford, modified by King in order to improve the detection of a transmission signal in a remote receiver.

#### ***Allowable Subject Matter***

10. Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to teach local oscillator having a voltage controlled 38 MHz oscillator and a frequency multiplier for multiplying the local oscillator signal by eight.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ono et al. (6,507,308) discloses a radio receiver (figs. 1, 5, 16-17, abstract), comprising: a radio receiver circuit that receives a radio signal; a LO circuit (14) that oscillates a LO signal; a demodulation circuit (3) that demodulates the signal; and an oscillation control signal (4) repeatedly sweeps an oscillation frequency in a frequency range (column 3 lines 23-39, 53-65, column 12 lines 16-21, column 14 lines 12-13, column 23 lines 13-27, column 27 lines 31-32).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SIMON D. NGUYEN whose telephone number is (571)272-7894. The examiner can normally be reached on M-Th, 7:00 AM TO 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SIMON D NGUYEN/  
Primary Examiner, Art Unit 2618

August 30, 2008